rather close relationship of gastrointestinal bleeding with thrombocytopenia and prolonged bleeding time was further evidence that the hemorrhagic manifestation was due to a factor other than, and in addition to, a single ulcerative lesion of the mucous membrane. The splenic influence was conclusively proven by the abrupt disappearance and continued absence of melena, both gross and by occult test, immediately after splenectomy. In addition the blood picture was normal and tests that would indicate hemorrhagic disturbance if it were present were negative for a year follow-up. Although purpura was not present, that does not rule out the thrombopenic state,[4] for it may be manifest by local bleeding from mucous membranes alone. The bleeding of thrombopenia is said to respond dramatically to removal of the spleen in such cases.

Although hemorrhagic tendencies have been described in several of the reports of cases of essential hyperlipemia, and splenomegaly in most of them, apparently in no case was investigation along the lines of associated splenic hyperactivity carried out. Hematemesis, epistaxis, death from "increasing hemorrhagic diathesis," reduction in the thrombocyte content in a patient with epistaxis, and prolonged bleeding time have been mentioned. No explanation has been offered for these hematologic abnormalities. Such findings should arouse suspicion of concomitant hypersplenism, since splenectomy may be life-saving.

Secondary hypersplenism is said to produce a clinical picture identical with that of primary hypersplenism, but to occur as a complication of a number of chronic disease processes such as leukemia, Hodgkin's disease, Boeck's sarcoid, "Banti's disease," Gaucher's disease and various infectious diseases such as tuberculosis, malaria, and kala-azar.[6] Apparently no case of hypersplenism secondary to essential hyperlipemia has been reported to date.

SUMMARY

A case of hypersplenism, secondary to essential hyperlipemia and cured by splenectomy, is presented. No other case of hypersplenism secondary to this metabolic disorder has been reported in the literature.

The abnormal splenic influence involved only platelet-forming elements with production of thrombocytopenia and repeated gastrointestinal bleeding. It is probable that the site of bleeding was a duodenal ulcer.

Splenectomy in hypersplenism secondary to benign primary disease, such as essential hyperlipemia, may be life-saving.

Hematologic abnormalities, associated with hemorrhagic tendencies and splenomegaly, are reported in the majority of cases of essential hyperlipemia. In some cases the patients may have secondary hypersplenism.

13th and Harrison Streets.

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Accessory Lobes of the Liver

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THE DIAGNOSIS of any intra-abdominal tumor is always of general interest and stimulates much speculation. Were it possible accurately to determine the exact nature of such tumors by means of physical diagnosis and roentgenography alone many operations could be avoided. As this obviously is not the case it is important to evaluate each tumor anatomically so as to presuppose a site of origin. Such a study not only enables the surgeon to plan a more effective operation but helps the internist in arriving at a diagnosis.

Despite its complex development the liver is subject to few abnormalities, and tumors palpated in the right upper quadrant of the abdomen are rarely attributed to other sites of origin. When accessory lobes of the liver occur they are rare, small, on the undersurface, and usually without clinical significance.

The human liver consists essentially of three main lobes but is unlike the liver of the pig or that of the dog, which are divided into distinct lobules separated by connective tissue.[2, 4, 6] The three fundamental lobes of the human liver develop independently in connection with different embryonic veins. Bradley[1] stated that the central lobe with its right and left lobules develops about the umbilical veins and the right and left lobes along the corresponding omphalomesenteric veins. The cause of fissures in the human liver is not clear; there is a possibility that they may be preceded by mesodermic septa which separate the lobes at an early period.

Both Fraser[4] and Cullen[2] reported accessory lobes arising in numerous places—from the gallbladder, in the suspensory ligament, imbedded in the adrenal gland, in the gastrohepatic ligament and in the pleural cavity. Cullen cited one case in which an accessory lobe became twisted on its pedicle and made emergency operation necessary.

The case report appearing below describes an abnormality which was not a true accessory lobe but rather an elongation of the right lobe of the liver. Despite thorough clinical and roentgenographic studies the findings were confused and the abnormality was thought to be a tumor separate from the liver.

Jacquemet[5] pointed out that the right lobe of the liver may extend into the iliac fossa. This malformation is totally independent of all alterations of the liver and appears to be congenital. It is referred to as Riedel's lobe and is confused with a variety of pathologic entities. In 1888, Riedel of Jena first described this curious anomaly in which the right lobe of the liver, without evidence of pathologic change, may extend to below the anterior iliac spine. He reported two typical cases. The literature on the subject is voluminous, but there is still much doubt and conjecture about the causes to which the condition is ascribed: tight lacing of garments, pushing down of the right lobe of the liver by an enlarging gallbladder, a dragging down of the liver substance by adhesions to the anterior abdominal wall, the drag of adherent prolapsed intestine or other abdominal viscus, and the presence of growths and cysts of various kinds.

Riedel called attention to the facts that extension of the right lobe occurs more frequently in women and that after evacuation of a distended gallbladder the lobe diminishes in size rather rapidly. Finney[3] stated categorically that in some cases the condition was caused by the tight lacing of women's apparel but that the principal cause is enlargement of the gallbladder, with adhesions from preceding inflammatory conditions playing an important role. He cited one case in which the tongue of liver substance became so attenuated that it was almost separated from the main body of the liver. He believed that the anomaly was an example of "the

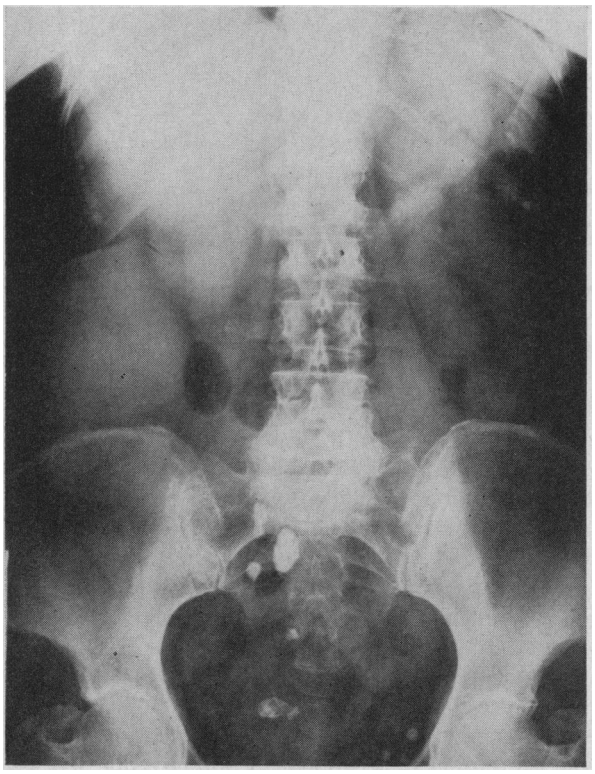

Figure 1.—Roentgenogram of the abdomen revealing a large mass on the right side.

pliability of the various structures of the human body and the ultimate result of mechanical action over long periods of time."

In the case reported here there was no evidence of pre-existing gallbladder disease and no intra-abdominal adhesions, and tight lacing was not a factor.

CASE REPORT

A 68-year-old white woman had mild pains in the lower right part of the abdomen, inconstant in nature and unrelated to bowel function. A large, firm mass extended from the pelvis on the right side to about the costal margin. It could not be felt on rectal or vaginal examination. The mass was smooth and was not tender; because of moderate obesity it was difficult to determine accurately whether it moved with respirations. It was ballottable from behind. No pertinent findings were obtained by thorough roentgen study (Figure 1) of the gallbladder, stomach, small and large intestine and kidneys; none of the normal viscera seemed displaced by the mass.

The impression was that of retroperitoneal tumor. On laparotomy a transverse, deep fissure was seen on the undersurface of the right lobe of the liver at about the level of the costal margin. Extending beyond the fissure was a long tongue or lappet of normal-appearing, smooth liver reaching into the iliac fossa. There was no fissure on the anterior surface. A biopsy specimen taken from the accessory lobe showed only normal liver.

SUMMARY

In the case here reported, extension of a lobe of the liver was found at operation after mild symptoms had led to a diagnosis of tumor.

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